

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION**

**AVANTE INTERNATIONAL)
TECHNOLOGY CORPORATION,)**

Plaintiff,)

vs.)

Case No. 4:06cv0978 TCM

**PREMIER ELECTIONS SYSTEMS,)
INC., and SEQUOIA VOTING)
SYSTEMS,)**

Defendants.)

**ORDER, FINDINGS, AND CONCLUSIONS
ON THE OBVIOUSNESS OF THE '944 AND '313 PATENTS**

This patent dispute is before the Court following a six-day trial, part of which concerned the defense of obviousness. The Court instructed the jury on the issue of obviousness relating to claims 1, 31, 32, and 42 of the '944 patent; and, claims 13, 14, 47, and 48 of the '313 patent. The jury found all claims to be obvious. Based upon the evidence and the applicable law, the Court finds and concludes as follows.

Findings of Fact

1. The parties have stipulated that United States Patent Nos. 6,892,944 ("the '944 patent") and 7,077,313 ("the '313 patent") claim priority to the provisional application date of October 1, 2001. The parties additionally stipulate that the following items of prior art came before the '944 and '313 patents:

- (1) U.S. Patent No. 4,300,123 (January 1979) (the "McMillin et al. patent") (Defs. Ex. G);
- (2) U.S. Patent No. 5,134,669 (June 1990) (the "Keogh et al. patent") (Defs. Ex. I);
- (3) U.S. Patent No. 5,103,490 (June 1990) (the "McMillin patent") (Defs. Ex. H);
- (4) U.S. Patent No. 5,248,872 (August 1991) (the "Stewart patent") (Defs. Ex. J);
- (5) U.S. Patent No. 6,250,548 (October 1997) (the "McClure et al. patent") (Defs. Ex. K);
- (6) The ES&S Model 100 optical scan voting machine (August 2000) (Defs. Exs. -10 and O-10); and
- (7) PageScanII documents and software (September 2000) (Defs. Exs. X-3 and Z-3).

2. The '944 and '313 patents concern themselves with optical scanning voting equipment. At the time of the priority date, optical scanning technology was in use in a variety of ways. Indeed, the '944 patent language advises viable use of optical scanners in the business field and as part of conventional ballot readers. (See '944 patent col. 14, ll. 43-62; col. 11, ll. 57-67; col. 1, ll. 66 - col. 2, ll.3.) Therefore, at the time of Plaintiff's patents priority dates, the use of optical scanning technology in the voting field was widely known and in use. The evidence is undisputed that one skilled in the art at the time of Plaintiff's inventions would be familiar with optical scanning technology as it applies to voting machines.

3. Jurisdictional identifiers used in electronic voting machines are capable of identifying and associating a ballot to a specific election, which is necessary due to the common practice of having votes cast in one polling place that are relevant to more than one election or issue.

4. An example of the relevant technology is the Election Systems and Software, Inc. ("ES&S") M-100 device sold as a precinct scanning device in 1994. By August 2000, the M-100 decoded jurisdictional identifiers marked on ballots, used the jurisdictional identifier to select the proper template, decoded and tabulated votes marked from the ballots, and reproduced an image of the voter's selection. According to Plaintiff's expert, Dr. Singh, the major differences between Plaintiff's inventions and the M-100 are (a) the inability of the M-100 to print the jurisdictional identifier and (b) the storage of the ballot image in the M-100 in random access memory ("RAM"), a volatile memory, as opposed to the non-volatile memory used in Plaintiff's invention.

5. The Stewart patent taught the use of reading ballots with optical scanners in 1991. Also prior to Plaintiff's patents' priority date, the McClure patent taught capturing and reproducing an image of a ballot in temporary memory and storing a portion of the ballot image, i.e., the write-in votes, in its permanent memory. The PageScan II (as described in the Court's Order, Findings, and Conclusions on Inequitable Conduct) captured and stored document images, and used templates to process the data from the images. The Court notes that the PageScan II device is sold as a scanner and not as voting equipment. However, the

capabilities of the PageScan II are included in Plaintiff's invention and were known and available prior to the October 1, 2001, Plaintiff's priority date.

6. It is undisputed that prior art taught capturing and reproducing data and images of a ballot in a pixelated and bit-mapped format and storing those images in RAM. See M-100 and McClure patents. The McMillin and Keogh patents combined printers and display devices in scanners to print and display election images for review. There were no technological barriers to scanning full or partial images of a ballot in non-volatile memory prior to Plaintiff's invention date. There is evidence that the cost of these capabilities may have been a barrier. There is also evidence that state and federal election laws do not permit reproducing completed ballots at the election site and that only the actual ballots may be reviewed in recounts.

7. An example of combining all of this technology is Premier Election Solutions, Inc.'s (Premier) high speed central count voting machine ("HSCC") which was demonstrated at trial. The HSCC combines all the prior technology discussed herein to create an apparatus similar to Plaintiff's invention with the help of off-the-shelf electronic equipment. The Court need not decide whether the HSCC was sold to San Diego election officials or whether it was used in a public place. The evidence is clear, however, that Premier created the HSCC prior to Plaintiff's invention and used the available technology discussed herein.

8. The jury, after hearing and viewing all the evidence, found that claims 1, 31, 32 and 42 of the '944 patent and claims 13, 14, 47 and 48 of the '313 patent would have been

obvious to a person of ordinary skill in the field given the prior art references and devices. The jury also found that these claims were anticipated by prior art.

Conclusions of Law

"A patent shall be presumed valid." 35 U.S.C. § 282. The burden of showing patent invalidity is by clear and convincing evidence. **Al-Site Corp. v. VSI Int'l Inc.**, 174 F.3d 1308, 1323 (Fed. Cir. 1999). One basis for showing patent invalidity is obviousness:

A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103(a); accord **DyStar Textilfarben GmbH & Co. v. C.H. Patrick Co.**, 464 F.3d 1356, 1360 (Fed. Cir. 2006) .

The principal reason for not allowing patents for what is obvious is "that a 'patent for a combination which only unites old elements with no change in the respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.'" **KRS Int'l Co. v. Teleflex, Inc.**, 127 S. Ct. 1727, 1739 (2007) (quoting **Great Atlantic & Pacific Tea Co., v. Supermarket Equip. Corp.**, 340 U.S. 147, 152 (1950)). "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." **Id.** "There must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." **Innogenetics N.V. v. Abbott Labs.**, 512 F.3d 1363, 1373 (Fed.

Cir. 2008) (internal quotations omitted). Although the analysis should be explicit, it is not necessary, however, for it to "seek out precise teachings related to the specific subject matter of the challenged claim" because the court may look at "the inferences and creative steps that a person of ordinary skill in the art would employ." **KRS Int'l**, 127 S. Ct. at 1741. See, e.g. Rothman v. Target Corp., — F.3d —, 2009 WL 349474 *5 (Fed. Cir. Feb. 13, 2009) (finding that expert testimony that each element of the claimed invention – one that combined a tank top with a nursing bra – was known was substantial evidence sufficient to sustain an obviousness verdict).

As noted above, the jury found that claims 1, 31, 32 and 42 of the '944 patent and claims 13, 14, 47 and 48 of the '313 patent would have been obvious to a person of ordinary skill in the field given the prior art references and devices and that these claims were anticipated by prior art. The Court concurs with these findings, which are supported by substantial evidence, and concludes that the listed claims would have been obvious in October 2001 to a person having ordinary skill in the art of optical scanning voting equipment.

For the foregoing reasons, the Court finds that claims 1, 31, 32 and 42 of the '944 patent and claims 13, 14, 47 and 48 of the '313 patent are invalid under 35 U.S.C. § 103.

/s/ Thomas C. Mummert, III
THOMAS C. MUMMERT, III
UNITED STATES MAGISTRATE JUDGE

Dated this 17th day of March, 2009.